

Application No.: 10/769,532
Amendment and Response dated July 22, 2009
Reply to Office Action of May 22, 2009
Docket No.: 1880-17 RCE III

Listing of the Claims:

This listing of claims will replace all prior versions and listings of claims in the subject application, as follows:

Claim 1. (Previously presented): A graft comprising:

a graft body section having a proximal end, a distal end, and defining at least one inflatable porous channel;

at least one inflatable porous cuff disposed at the proximal or distal end of the graft body section and in fluid communication with the at least one channel, wherein the at least one inflatable porous cuff is disposed in an axisymmetric cylindrical manner around the proximal or distal end of the graft body section; and

an inflation medium including at least one therapeutic agent configured to be introduced into the inflatable channel;

wherein the inflation medium comprises a curable liquid comprising a therapeutic agent-carrying host polymer.

Claim 2. (Original): The graft of claim 1 wherein the agent is capable of being transported from the inflation medium through a wall of the porous channel and released into a body lumen.

Claim 3. (Original): The graft of claim 2 wherein the agent is configured to be released into the body lumen from a luminal or abluminal surface of the graft body section.

Claim 4. (Original): The graft of claim 2 wherein the porous channel has varying levels of porosity.

Claim 5. (Original): The graft of claim 2 wherein the graft body section comprises one or more materials selected from the group consisting of a fluoropolymer, a polyethyleneterephthalate, a polyvinylchloride, a polyurethane, a polyolefin, and a polyamide.

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Claim 6. (Original): The graft of claim 2 wherein the graft body section comprises expanded or perforated polytetrafluoroethylene.

Claim 7. (Original): The graft of claim 2 wherein a quantity of the agent releasable into the body lumen ranges from about 10 micrograms to about 100 milligrams.

Claim 8. (Original): The graft of claim 2 wherein the therapeutic agent is configured to be transported into the body lumen in a time period ranging from about seven days to about twelve months.

Claim 9. (Original): The graft of claim 2 wherein the at least one therapeutic agent comprises one or more agents selected from the group consisting of an endothelialization promoting agent, an angiogenesis promoting agent, an anti-thrombotic agent, an anti-aneurysmal agent, an anti-infection agent, an anti-inflammatory agent, an anti-restenosis agent, a chemotherapeutic agent, and an anti-cancer agent.

Claim 10. (Canceled)

Claim 11. (Previously presented): The graft of claim 1 wherein the therapeutic agent is capable of being released by diffusion through the host polymer.

Claim 12. (Previously presented): The graft of claim 1 wherein the therapeutic agent is capable of being released by degradation of the host polymer.

Claim 13. (Previously presented): The graft of claim 1 wherein the graft body section comprises biocompatible material capable of inhibiting transport of a bulk of the host polymer.

Claim 14. (Previously presented): The graft of claim 1 wherein the host polymer is capable of being introduced into the inflatable channel before, during, or after graft deployment or implantation.

Claims 15-17. (Canceled)

Claim 18. (Previously presented): The graft of claim 1 wherein the inflation medium has a cure time ranging from about three minutes to about twenty minutes and a post-cure elastic modulus ranging from about 50 psi to about 400 psi.

Claim 19. (Original): The graft of claim 1 wherein the channel comprises one or more features selected from the group consisting of helical spirals, longitudinal channels, and circumferential rings.

Claim 20. (Canceled)

Claim 21. (Previously presented): A graft comprising:
a graft body section having a proximal end, a distal end, and defining at least one inflatable porous channel therebetween;
a connector member affixed to the proximal or distal end of the graft body section, the connector member comprising one or more connector elements;
a stent comprising one or more proximal stent connector elements coupled to the one or more connector member connector elements wherein the stent comprises a multi-crown configuration; and
a curable inflation medium including at least one therapeutic agent configured to be introduced into the inflatable channel.

Claims 22-35 (Canceled)

Claim 36. (Previously presented): The graft of claim 21, wherein the curable inflation medium comprises a curable liquid.

Claims 37-38. (Canceled)

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Claim 39. (Previously presented): A graft comprising:
a graft body section having a proximal end, a distal end, and defining at least one inflatable porous channel;
at least one inflatable porous cuff disposed at the proximal or distal end of the graft body section and in fluid communication with the at least one channel, wherein the at least one inflatable porous cuff is disposed in an axisymmetric cylindrical manner around the proximal end of the graft body section;
a connector member affixed to the proximal or distal end of the graft body section, the connector member comprising one or more connector elements;
a stent comprising one or more proximal stent connector elements coupled to the one or more connector member connector elements wherein the stent comprises a multi-crown configuration; and
an inflation medium including at least one therapeutic agent configured to be introduced into the inflatable channel;
wherein the inflation medium comprises a curable liquid.

Claim 40. (Canceled)

Claim 41 (Previously presented): The graft of claim 1 wherein the at least one inflatable porous cuff is disposed at the proximal end of the graft body section and further comprising at least one second inflatable porous cuff disposed at the distal end of the graft body section in fluid communication with the at least one channel, wherein the at least one second inflatable porous cuff is disposed in an axisymmetric cylindrical manner around the distal end of the graft body section.

Claim 42. (Previously presented): The graft of claim 21 wherein the connector member comprises a multi-apex configuration.

Claim 43. (Previously presented): The graft of claim 42 wherein the connector member comprises a twelve-apex configuration.

Claim 44. (Previously presented): The graft of claim 21 wherein the stent comprises a three-crown portion.

Claim 45. (Previously presented): The graft of claim 21 wherein the stent comprises a six-crown portion.

Claim 46. (Previously presented): The graft of claim 21 wherein the stent comprises a three-crown portion and a six-crown portion.

Claim 47 (Previously presented): The graft of claim 21 wherein the connector member affixed to the proximal end of the graft body section; and further comprising
a second connector member affixed to the distal end of the graft body section, the second connector member comprising one or more second connector elements; and
a second stent comprising one or more proximal second stent connector elements coupled to the one or more second connector member connector elements, wherein the second stent comprises a multi-crown configuration.

Claim 48. (Previously presented): The graft of claim 21 wherein the at least one therapeutic agent comprises one or more agents selected from the group consisting of an endothelialization promoting agent, an angiogenesis promoting agent, an anti-thrombotic agent, an anti-aneurysmal agent, an anti-infection agent, an anti-inflammatory agent, an anti-restenosis agent, a chemotherapeutic agent, and an anti-cancer agent.

Claim 49 (Previously presented): The graft of claim 39 wherein the at least one inflatable porous cuff is disposed at the proximal end of the graft body section and further comprising at least one second inflatable porous cuff disposed at the distal end of the graft body section in fluid communication with the at least one channel, wherein the at least one second inflatable porous cuff is disposed in an axisymmetric cylindrical manner around the distal end of the graft body section.

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Claim 50. (Previously presented): The graft of claim 39 wherein the connector member comprises a multi-apex configuration.

Claim 51. (Previously presented): The graft of claim 50 wherein the connector member comprises a twelve-apex configuration.

Claim 52. (Previously presented): The graft of claim 39 wherein the stent comprises a three-crown portion.

Claim 53. (Previously presented): The graft of claim 39 wherein the stent comprises a six-crown portion.

Claim 54. (Previously presented): The graft of claim 39 wherein the stent comprises a three-crown portion and a six-crown portion.

Claim 55 (Previously presented): The graft of claim 39 wherein the connector member affixed to the proximal end of the graft body section; and further comprising

a second connector member affixed to the distal end of the graft body section, the second connector member comprising one or more second connector elements; and

a second stent comprising one or more proximal second stent connector elements coupled to the one or more second connector member connector elements, wherein the second stent comprises a multi-crown configuration.

Claim 56. (Previously presented): The graft of claim 39 wherein the at least one therapeutic agent comprises one or more agents selected from the group consisting of an endothelialization promoting agent, an angiogenesis promoting agent, an anti-thrombotic agent, an anti-aneurysmal agent, an anti-infection agent, an anti-inflammatory agent, an anti-restenosis agent, a chemotherapeutic agent, and an anti-cancer agent.